

have daily opportunity of examining them; and, though it is true that the cheese in the Province of Quebec are generally not so skilfully made as those of the Province of Ontario, it is also true that there are many first-class makers in this province; but I do not know of a single case where the cheese of the Province of Quebec, made as it is from milk containing a higher percentage of fat, would sell for more money than the cheese of the Province of Ontario. I may also say further that we have had during the past year the cheese of a factory in the Province of Ontario where the milk was divided into two vats, one containing the milk of Holstein cattle, and the other containing the milk of the patrons who did not have Holstein cattle. The difference in quality of milk contained in the vats varied, of course; but averaged something like 4 per cent. difference, and these cheese have shown to experts continuously throughout the season without in any case having the most expert judge decide that the cheese from the Holstein milk was in any way inferior to that made from the other milk; in fact, frequently the decision was that the cheese made from the Holstein milk was the better of the two.

"Now, if cheese made from the whole milk containing different percentages of fat, when made under similar conditions, and with equal skill, are salable at equal prices, then the farmer should be paid for the weight of cheese that his milk will make, and not for the weight of fat contained in it.

Mr. Monrad tries to make it appear that Professor Dean's contentions are erroneous, because they have not been more generally adopted by the cheese makers of Canada, but anyone closely in touch with the patrons of an old established cheese factory clearly understands the reason why, and it is simply because the largest and most progressive patrons of the factory have devoted themselves to large production of milk, instead of increased percentage of butter fat, and the largest and most influential patrons of the factory succeed in continuing the old method of paying for weight of milk alone without any reference to its percentage of fat. They cannot be ingored; therefore the system of paying for weight alone is continued. I enclose the result of some experiments that were made by J. A. Ruddick, which may be of interest to your readers, and which would show the result of the different systems. These figures of yield of cheese have been frequently confirmed by Professor Dean and other experts.

METHODS OF PAYING PATRONS OF CHEESE FACTORIES.

Taken from experiments made by J. A. Ruddick, at Perth, Ont.

Fat Content of Milk	Actual Yield of Cheese Per 1,000 lbs. Milk	Calculated Yield of Cheese Per 1,000 lbs. of Milk		
		From Fat %	From Fat + 2	From Fat + 3
3.20	90.5	85.77	88.92	89.70
3.30	91.7	88.45	90.63	91.20
3.50	93.6	93.80	94.00	94.10
3.70	95.4	99.26	97.47	97.00
3.90	100.7	104.62	100.88	99.90
17.60	471.9	471.90	471.90	471.90

APIARY.

Bee-keeping in Canada.

Editor "The Farmer's Advocate":

When we cast even only a superficial glance over the Canadian agricultural horizon, there may be some difficulty in stating the exact condition of bee-keeping. This much, however, we know. There is an immense influx into the West by people who have been lured into that country by either the results of the labor of those already there or the decision that the country promises to them what they are looking for, which in the majority of cases is comfort and affluence as far as this world can give it. They expect two things, a good crop, taking one year with another, and they expect to reap in dollars or assets the increase in value of the land which they homestead and pre-empt or purchase. Their produce is largely grain, and their necessities for living, or their desires, which are often much beyond this, compels them even for food to draw upon the produce of the farms of older Canada.

I have no desire to enter into any controversy over this matter; more, I will not be drawn into it, but it is my humble opinion, in my estimation based upon sober judgment and experience, that the Ontario producer of foods is in a measure, a considerable measure, reaping the advantage of this demand. Also that the spirit of the times is to enter employment, where the beauty of hands is not marred by the evidences of manual

labor, forgetting or not knowing that the decree, "In the sweat of thy face shalt thou eat bread," cannot be ignored without its consequences to individuals, and still more to families if it is continued from generation to generation. As far as actual physical enjoyment goes, the individual who enjoys food, rest and shelter to the full, is the one who knows what hunger, toil and exposure to elements is. But the far-off view of the city is fair indeed, and it is only when we can see beneath the surface of city life that we find less to value in it.

With the spirit of the times there is every likelihood that the production of farm produce is going to be an attractive proposition for Ontario at least, and if a financial exigency should arrive the farmer then is always the man in the best position, for he can produce his own food.

Coming to bee-keeping, the prices at present paid for honey makes this industry an attractive proposition. The demand for honey in Canada is quite equal to the production. Again, bees are well known to be very important agents in the pollination of blossoms, from which come fruit and seed of value to the farmer. This question need not be enlarged upon here. But why is it that so many have gone into bee-keeping and made a failure of the business? When we look over sections of country where years ago dozens of men kept bees we often find none or very few in the business now.

Bee-keeping is a business requiring skill, intelligence and application. Successful and extensive bee-keepers are not made at colleges and schools, but by coming in contact with the practical operations of the apiary on an extensive scale. The theory of bee-keeping is only a step in its mastery. The lines of operation

seasons, very profitable seasons, but some of us who have been in the business over thirty years, yes, and a much shorter time, testify that there are unprofitable seasons, seasons where not enough is got out of bee-keeping to even make a bare living.

FOUL BROOD.

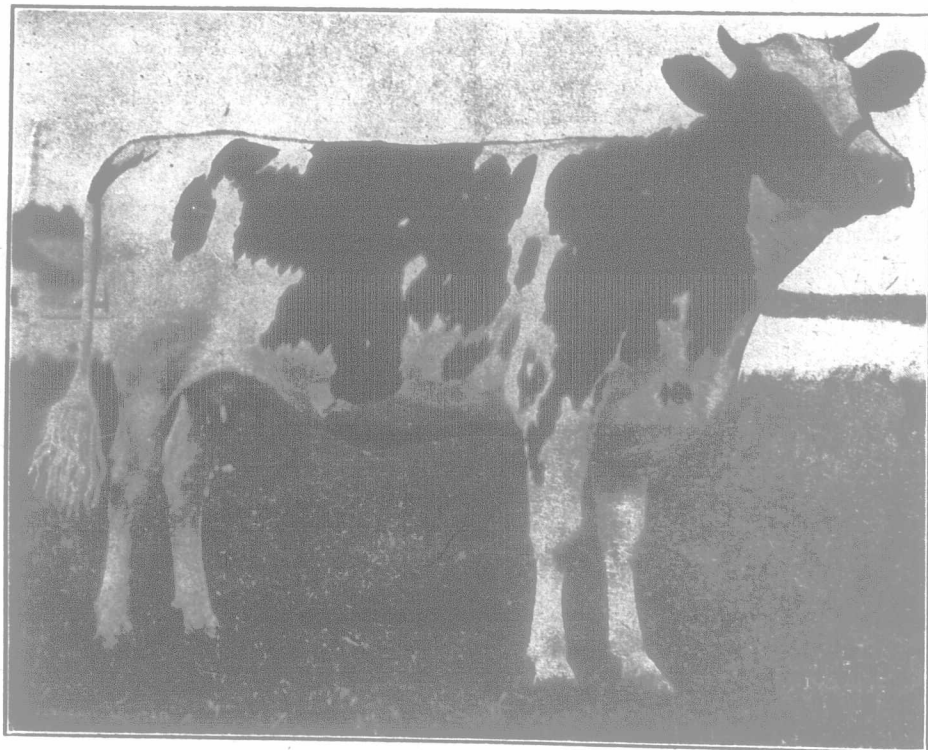
Then there is European and American foul brood. The former is a new disease in Canada. It has been predicted by experts that it will sweep the entire country. From near Trenton it has swept into the Ottawa Valley, it is in Quebec, and it has obtained a foothold in Niagara Peninsula. Anyone doubting my statements need only look at the Annual Report of the Ontario Bee-Keepers' Association to find material which will more than verify them. Just now, it seems to me, to advise men either in Ontario or Quebec to go into bee-keeping, is like advising a man to go into hog-production with an outbreak of hog cholera in the vicinity—only far worse.

Bees can carry the germs of the disease home long distances. In that sense foul brood has wings. We are told that the reason why this disease is not followed up better and stamped out more effectually is because the Province cannot supply more money for the purpose. I shall let the public judge as to the need and wisdom of such a policy, and whether it is wise to seek to develop, at expense, the industry, on the one hand, and allow those already in it to be wiped out, on the other, for lack of funds.

I had one young man from England, one from West Virginia, and another from Ohio, studying bee-keeping with me this summer. There is felt more and more the realization of the need of experience and adequate information upon this line of agriculture, but it will not be a safe industry, especially for the comparatively inexperienced, until more effort is made to stamp out these two dread diseases.

This autumn I was twice in Quebec Province. I was for a considerable time in the presence of two of Quebec's foul-brood inspectors, and secured what information I could about the condition there, and foul brood has destroyed many apiaries there. For my own part, I have said for years foul brood appears to be the only animal disease of a contagious nature which the Dominion Government does not see long to stamp out thereof. Why has it not long ago contributed to the cost of its eradication?

Brant Co., Ont. R. F. HOLTERMANN.



Colantha Fayne (17152).

First-prize junior yearling Holstein heifer, and champion female of the breed, at Ottawa, 1912. This heifer, as a junior calf, was junior champion at the Canadian National in 1911. Owned by Colony Farm, Mt. Coquitlam, B.C.

vary so much, according to conditions, that no set rules can be laid down to carry out the season's operations. For instance, I once heard an address given on the prevention of swarming, when the bee-keeper was instructed to break up the brood chamber of the hive as soon as the bees built cell cups. I do not agree with that practice, but there may be good bee-keepers who advocate such. But it so happened that at that very time I and others had a lot of colonies in that condition, but the weather had suddenly changed, fruit bloom was passing away, in fact was practically over, and the bees had received a severe check. Cold nights would have made it suicidal to do as was directed. It takes a great many years of experience to size up the situation in the honey-flow or during the active season with the bees, and, more, being constantly in touch with the bees. The bees need the most attention at a time when the ordinary farmer has his hands already more than full, when he must neglect something, and it is generally the bees who suffer. When we remember that a colony of bees left without queen for ten weeks is practically a ruined colony, because the lifetime of the bee in the active season is only some six to eight weeks, we will see how easily bees may be lost.

Bee-keeping is not a business for a farmer to have to look after with 100 or more acres of land. Those who are invited to engage in the business should have its advantages and disadvantages put before them fairly. There are good

the stamping out thereof. Why has it not long ago contributed to the cost of its eradication?

Brant Co., Ont.

R. F. HOLTERMANN.

POULTRY.

Few Breeds Best.

An English journal, discussing the best breeds of poultry, says: "So far as breeds are concerned, this question requires the most careful consideration. It is not what managers or instructors like, but that which is most suited to the district. We recently heard of a poultry manager at a Government farm buying a lot of Aseel fowls, because, we suppose, he fancied them. Such a man is unfit for his position in that he makes his own fancy the dominant factor. As a rule, a couple of breeds of fowls, one of ducks, geese and turkeys, whichever of the last named are kept, will be enough. Better have too few than too many breeds. At some centres (experiment stations) one will be sufficient. We do not want a permanent poultry zoo, but to improve and disseminate birds of practical value, to teach and demonstrate the best methods."

Keep the pullets growing. Give them variety in diet, a bright, well-ventilated pen, and feed the whole grain in the straw to insure their taking exercise.

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